

PRIMARY USE: Minimize bank erosion.

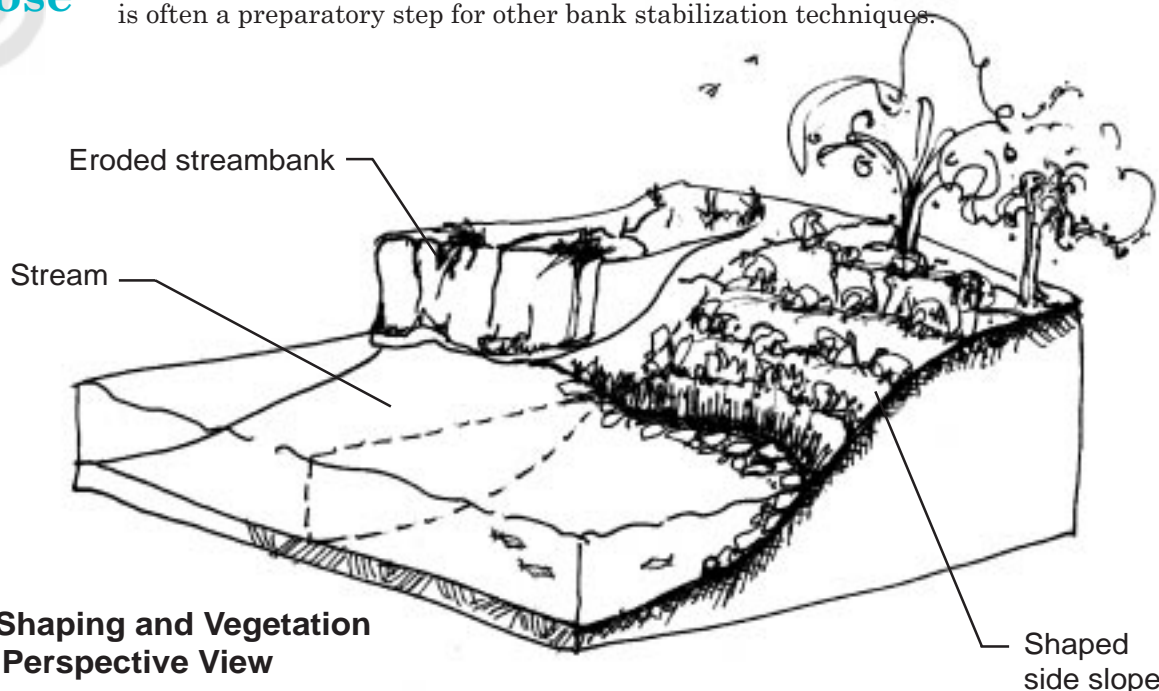
ADDITIONAL USES: Preparatory step for other bank stabilization techniques.

BANK SHAPING AND VEGETATING

What is it? Bank shaping involves excavating and filling the raw, eroded stream bank to a side slope which is suitable for the site. Suitability criteria include soil materials, moisture conditions, planned vegetation, bank loading conditions, and hydraulic exposure of the site. Appropriate plant materials are selected and installed to stabilize the side slope.

Purpose

This technique is one of the least intensive approaches to restoration of bank erosion, and is often a preparatory step for other bank stabilization techniques.



Limitations

The bank to be shaped must not currently be experiencing mass movement.

Materials

Select native plant materials that are suited to the velocity regime and other site conditions or have shown success along other, neighboring, similar stream reaches. Lower slope segments can be planted with flood tolerant species while upland species may be more suited to the better drained, upper slope. Select species which will bend during flow, and will withstand ice loading and abrasion. In dry regions, choose species which can root to the available groundwater level.

Installation

Schedule shaping work to end during the planting windows for the selected vegetation and to occur during periods which will not interfere with key aquatic species reproduction. Divert flow away from the stream bank and install silt fences or other devices to keep construction generated sediment from entering the stream. Salvage topsoil for applying to the slope surface as a planting medium. Plant, seed, fertilize, and mulch according to recommendations. Follow with periodic supplemental water if needed to assure establishment.

Source: Stream Corridor Restoration Handbook, USDA.